

Listing of Claims:

Please amend the claims as follows:

1. (currently amended) A ~~fluidized-bed~~ gasification reactor for gasification of combustion, residual and waste materials containing carbon and ash using an oxygen-containing oxidizing agent at temperatures above the melting point of the inorganic parts of said combustion, residual and waste materials at a pressure between ambient pressure and 60 bar, comprising:

a ~~fluidized-bed~~ gasification reaction chamber;

a refractory-grade lining configured to form a first, upper part of said reaction chamber;
and

a cooling wall configured to form a second, lower part of said reaction chamber, said cooling wall including cooling coils connected in a gas -tight manner, said cooling coils being coated with a heat-conducting ceramic layer and operated, while being cooled by pressurized water, below or above the boiling point of the cooling water, said refractory-grade lining and said cooling wall being joined in an overlapping fashion so as to compensate for different heat expansions.

2. (currently amended) The ~~fluidized-bed~~ gasification reactor of claim 1, wherein said reactor is operated at a pressure between ambient pressure and 30 bar.

3. (currently amended) The ~~fluidized-bed~~ gasification reactor of claim 1, wherein said cooling wall of said reaction chamber comprises a double-mantle design with a cooling space.

4. (currently amended) The ~~fluidized-bed~~ gasification reactor of claim 1, wherein said second part of said reaction chamber includes a lower floor and a lower outlet opening.

5. (currently amended) The ~~fluidized-bed~~ gasification reactor of claim 4, wherein said cooling wall of said reaction chamber is limited to said lower outlet opening.

6. (currently amended) The ~~fluidized-bed~~ gasification reactor of claim 4, further comprising a cylindrical mantle surrounding said reaction chamber, and cooling means to cool said lower floor and said lower outlet opening of said reaction chamber, said cooling means being connected in series or in parallel with said cylindrical mantle.

7. (currently amended) The ~~fluidized-bed~~ gasification reactor of claim 1, wherein said first part and said second part of said reaction chamber are the upper part and the lower part, respectively, of said reaction chamber.